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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/511,384	04/27/2005	Monica Bequet Romero	976-19 PCT/US	3767

7590 03/07/2007  
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EXAMINER
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HUYNH, PHUONG N

ART UNIT	PAPER NUMBER
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1644

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
31 DAYS	03/07/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/511,384

Applicant(s)

ROMERO ET AL.

Examiner

Phuong Huynh

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE One MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10/15/04.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-70 and 80-97 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-70 and 80-97 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

- I. Claims 1-70 and 80-97 are pending.

#### *Election/Restrictions*

- II. Restriction to one of the following inventions is required under 35 U.S.C. 121 and 372:

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1:

1. Claims 1-4, 6-8, and 26, drawn to an immunogenic composition comprising **VEGFR1** polypeptides and fragments thereof, administered in the presence or not of a pharmaceutically accepted adjuvant.
2. Claims 1-8, and 26, drawn to an immunogenic composition comprising **oligonucleotide encoding VEGFR1** polypeptides and fragments thereof, administered in the presence or not of a pharmaceutically accepted adjuvant.
3. Claims 9-12, 14-16 and 26, drawn to an immunogenic composition comprising **VEGFR2** polypeptides and fragments thereof, administered in the presence or not of a pharmaceutically accepted adjuvant.
4. Claims 9-16 and 26, drawn to an immunogenic composition comprising **oligonucleotide encoding VEGFR2** polypeptides and fragments thereof, administered in the presence or not of a pharmaceutically accepted adjuvant.
5. Claims 17-20, 22-24 and 26, drawn to an immunogenic composition comprising **VEGFR3** polypeptides and fragments thereof, administered in the presence or not of a pharmaceutically accepted adjuvant.
6. Claims 17-24 and 26, drawn to an immunogenic composition comprising **oligonucleotide encoding VEGFR3** polypeptides and fragments thereof, administered in the presence or not of a pharmaceutically accepted adjuvant.

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7. Claim 25, drawn to an immunogenic composition comprising **VEGF** polypeptides and fragments thereof, administered in the presence or not of a pharmaceutically accepted adjuvant.
8. Claims 25 and 26, drawn to an immunogenic composition comprising **oligonucleotides encoding VEGF** polypeptides and fragments thereof, administered in the presence or not of a pharmaceutically accepted adjuvant.
9. Claim 27, drawn to an immunogenic composition comprising **VEGF and at least one specific molecule oligonucleotide encoding VEGFR1** polypeptides, administered in the presence or not of a pharmaceutically accepted adjuvant.
10. Claim 27, drawn to an immunogenic composition comprising **VEGF and at least one specific molecule oligonucleotide encoding VEGFR2** polypeptides, administered in the presence or not of a pharmaceutically accepted adjuvant.
11. Claim 27, drawn to an immunogenic composition comprising **VEGF and at least one specific molecule oligonucleotide encoding VEGFR3** polypeptides, administered in the presence or not of a pharmaceutically accepted adjuvant.
12. Claim 27, drawn to an immunogenic composition comprising **VEGF and at least one specific molecule oligonucleotide encoding NRP-1** polypeptides, administered in the presence or not of a pharmaceutically accepted adjuvant.
13. Claim 27, drawn to an immunogenic composition comprising **VEGF and at least one specific molecule oligonucleotide encoding NRP-2** polypeptides, administered in the presence or not of a pharmaceutically accepted adjuvant.
14. Claim 27, drawn to an immunogenic composition comprising **VEGF and at least one specific molecule VEGFR3** polypeptides, administered in the presence or not of a pharmaceutically accepted adjuvant.

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15. Claim 27, drawn to an immunogenic composition comprising **VEGF and at least one specific molecule NPR-1** polypeptides, administered in the presence or not of a pharmaceutically accepted adjuvant.
16. Claim 27, drawn to an immunogenic composition comprising **VEGF and at least one specific molecule NRP-2** polypeptides, administered in the presence or not of a pharmaceutically accepted adjuvant.
17. Claims 28 and 29, drawn to an immunogenic composition comprising a **bi-cistronic vector coding for VEGFR1 or fragment thereof and a mutant of VEGF**, and a **DNA vector coding for VEGFR1 or fragment thereof and a DNA vector coding for a mutant of VEGF**, administered in the presence of or incorporated into *Neisseria meningitidis* outer membrane derived VSSP.
18. Claim 30, drawn to an immunogenic composition comprising a **fusion protein** containing a **VEGFR1 or fragments thereof and a mutant of VEGF**, administered in the presence of or incorporated into *Neisseria meningitidis* outer membrane derived VSSP.
19. Claims 27 and 31, drawn to an immunogenic composition comprising a **VEGFR1 or fragments thereof and a mutant of VEGF**, administered in the presence of or incorporated into *Neisseria meningitidis* outer membrane derived VSSP.
20. Claims 32 and 33, drawn to an immunogenic composition comprising a **bi-cistronic vector coding for VEGFR2 or fragment thereof and a mutant of VEGF**, administered in the presence of or incorporated into *Neisseria meningitidis* outer membrane derived VSSP or an immunogenic composition comprising a **DNA vector coding for VEGFR2 or fragment thereof and a DNA vector coding for a mutant of VEGF**, administered in the presence of or incorporated into *Neisseria meningitidis* outer membrane derived VSSP.
21. Claim 34, drawn to an immunogenic composition comprising a **fusion protein** containing a **VEGFR2 or fragments thereof and a mutant of VEGF**, administered in the presence of or incorporated into *Neisseria meningitidis* outer membrane derived VSSP.

22. Claims 27 and 35, drawn to an immunogenic composition comprising a **VEGFR2 or fragments thereof and a mutant of VEGF**, administered in the presence of or incorporated into *Neisseria meningitidis* outer membrane derived VSSP.
23. Claims 36-39, 41-43, 61-62, 80, and 83-84, drawn to a **method for active vaccination** comprising administering an immunogenic composition comprising **VEGFR1** polypeptides and fragments thereof, administered in the presence or not of a pharmaceutically accepted adjuvant for the treatment of disorders associated to an increment of angiogenesis.
24. Claims 36-43, 61-62, 80 and 83-84, drawn to a **method for active vaccination** comprising administering an immunogenic composition comprising **oligonucleotides encoding VEGFR1** polypeptides and fragments thereof, administered in the presence or not of a pharmaceutically accepted adjuvant for the treatment of disorders associated to an increment of angiogenesis.
25. Claims 44-47, 49-51, 61-62, 81 and 83-84, drawn to a **method for active vaccination** comprising administering an immunogenic composition comprising **VEGFR2** polypeptides and fragments thereof, administered in the presence or not of a pharmaceutically accepted adjuvant for the treatment of disorders associated to an increment of angiogenesis.
26. Claims 44-51, 61-62, 81 and 83-84, drawn to a **method for active vaccination** comprising administering an immunogenic composition comprising **oligonucleotides encoding VEGFR2** polypeptides and fragments thereof, administered in the presence or not of a pharmaceutically accepted adjuvant for the treatment of disorders associated to an increment of angiogenesis.
27. Claims 52-55, 57-59, 61-62 and 82-84, drawn to a **method for active vaccination** comprising administering an immunogenic composition comprising **VEGFR3** polypeptides and fragments thereof, administered in the presence or not of a

pharmaceutically accepted adjuvant for the treatment of disorders associated to an increment of angiogenesis.

28. Claims 52-59, 61-62, and 82-84, drawn to **a method for active vaccination** comprising administering an immunogenic composition comprising **oligonucleotides encoding VEGFR3** polypeptides and fragments thereof, administered in the presence or not of a pharmaceutically accepted adjuvant for the treatment of disorders associated to an increment of angiogenesis.
29. Claims 52-55, 57-59, 61-61, and 82-84, drawn to **a method for active vaccination** comprising administering an immunogenic composition comprising **NRP-1** polypeptides and fragments thereof, administered in the presence or not of a pharmaceutically accepted adjuvant for the treatment of disorders associated to an increment of angiogenesis.
30. Claims 52-59, 61-62 and 82-84, drawn to **a method for active vaccination** comprising administering an immunogenic composition comprising **oligonucleotides encoding NRP-1** polypeptides and fragments thereof, administered in the presence or not of a pharmaceutically accepted adjuvant for the treatment of disorders associated to an increment of angiogenesis.
31. Claims 52-55, 57-59, 61-62 and 82-84, drawn to **a method for active vaccination** comprising administering an immunogenic composition comprising **NRP-2** polypeptides and fragments thereof, administered in the presence or not of a pharmaceutically accepted adjuvant for the treatment of disorders associated to an increment of angiogenesis.
32. Claims 52-59, 61-62 and 82-84, drawn to **a method for active vaccination** comprising administering an immunogenic composition comprising **oligonucleotides encoding NRP-2** polypeptides and fragments thereof, administered in the presence or not of a pharmaceutically accepted adjuvant for the treatment of disorders associated to an increment of angiogenesis.

33. Claims 60 and 93, drawn to **a method for active vaccination** comprising administering an immunogenic composition comprising **VEGF** polypeptides and fragments thereof, administered in the presence or not of a pharmaceutically accepted adjuvant for the treatment of disorders associated to an increment of angiogenesis.
34. Claims 60 and 93, drawn to **a method for active vaccination** comprising administering an immunogenic composition comprising **oligonucleotides encoding VEGF** polypeptides and fragments thereof, administered in the presence or not of a pharmaceutically accepted adjuvant for the treatment of disorders associated to an increment of angiogenesis.
35. Claims 63-64 and 85-86, drawn to **a method for active vaccination** comprising administering **bi-cistronic vector coding for VEGFR2 or fragment thereof and a mutant of VEGF**, and a **DNA vector coding for VEGFR2 or fragment thereof and a DNA vector coding for a mutant of VEGF**, administered in the presence of or incorporated into *Neisseria meningitidis* outer membrane derived VSSP administering in the presence or not of a pharmaceutically accepted adjuvant for the treatment of disorders associated to an increment of angiogenesis.
36. Claims 65 and 87, drawn to **a method for active vaccination** comprising administering a **fusion protein containing VEGFR2 or fragment thereof and a mutant of VEGF**, administered in the presence of or incorporated into *Neisseria meningitidis* outer membrane derived VSSP administering in the presence or not of a pharmaceutically accepted adjuvant for the treatment of disorders associated to an increment of angiogenesis.
37. Claims 66 and 88, drawn to **a method for active vaccination** comprising administering **an immunogenic protein composition comprising VEGFR2 or fragment thereof and a mutant of VEGF**, administered in the presence of or incorporated into *Neisseria meningitidis* outer membrane derived VSSP administering in the presence or not of a pharmaceutically accepted adjuvant for the treatment of disorders associated to an increment of angiogenesis.



38. Claims 67-68, 89-90, and 94-95, drawn to a **method for active vaccination** comprising administering **bi-cistronic vector coding for VEGFR1 or fragment thereof and a mutant of VEGF**, and a **DNA vector coding for VEGFR1 or fragment thereof and a DNA vector coding for a mutant of VEGF**, administered in the presence of or incorporated into *Neisseria meningitidis* outer membrane derived VSSP administering in the presence or not of a pharmaceutically accepted adjuvant for the treatment of disorders associated to an increment of angiogenesis.
39. Claims 69, 91, and 96, drawn to a **method for active vaccination** comprising administering a **fusion protein containing VEGFR1 or fragment thereof and a mutant of VEGF**, administered in the presence of or incorporated into *Neisseria meningitidis* outer membrane derived VSSP administering in the presence or not of a pharmaceutically accepted adjuvant for the treatment of disorders associated to an increment of angiogenesis.
40. Claims 70, 92 and 97, drawn to a **method for active vaccination** comprising administering an **immunogenic protein composition comprising VEGFR1 or fragment thereof and a mutant of VEGF**, administered in the presence of or incorporated into *Neisseria meningitidis* outer membrane derived VSSP administering in the presence or not of a pharmaceutically accepted adjuvant for the treatment of disorders associated to an increment of angiogenesis.

The inventions listed as Groups 1-40 do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons:

The 5,712,380 patent (issued Jan 1998; PTO 892) teaches a composition comprising VEGFR1 polypeptide or fragment thereof and a pharmaceutically acceptable carrier (see col. 8, lines 47-67 bridging col. 9, lines 1-21, in particular). The reference composition is administered in the absence of an adjuvant.

Since Applicant's inventions do not contribute a special technical feature when viewed over the prior art they do not have single general inventive concept and lack unity of invention.

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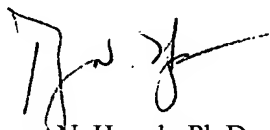
- III. Accordingly, Groups 1-40 are not so linked as to form a single general inventive concept and restriction is proper.
- IV. Applicant is advised that the response to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed.
- V. The examiner has required restriction between product and process claims. Where applicant elects claims directed to the product, and a product claims are subsequently found allowable, withdrawn process claims that depend from or otherwise include all the limitations of the allowable product claim will be considered for rejoinder. All claims directed a nonelected process invention must require all the limitations of an allowable product claim for that process invention to be rejoined.

In the event of rejoinder, the requirement for restriction between the product claims and the rejoined process claims will be withdrawn, and the rejoined process claims will be fully examined for patentability in accordance with 37 CFR 1.104. Thus, to be allowable, the rejoined claims must meet all criteria for patentability including the requirements of 35 U.S.C. 101, 102, 103, and 112. Until all claims to the elected product claim are found allowable, an otherwise proper restriction requirement between product claims and process claims may be maintained. Withdrawn process claims that are not commensurate in scope with an allowed product claim will not be rejoined. See MPEP § 821.04(b). Additionally, in order to retain the right to rejoinder in accordance with the above policy, applicant is advised that the process claims should be amended during prosecution to require the limitations of the product claims. **Failure to do so may result in a loss of the right to rejoinder.** Further, note that the prohibition against double patenting rejections of 35 U.S.C. 121 does not apply where the restriction requirement is withdrawn by the examiner before the patent issues. See MPEP § 804.01.

- VI. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phuong Huynh "NEON" whose telephone number is (571) 272-0846. The examiner can normally be reached Monday through Friday from 9:00 am to 5:30 p.m. A message may be left on the examiner's voice mail service. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Chan can be reached on (571) 272-0841. The IFW official Fax number is (571) 273-8300.

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VII. Any information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Phuong N. Huynh, Ph.D.

Patent Examiner

Technology Center 1600

March 2, 2007